20414 Implementing an Advanced Server Infrastructure

Overview

Students learn skills to plan and implement a highly available, secure infrastructure with focus on Active Directory® Federation Service (AD FS), public key infrastructure (PKI), and Active Directory Rights Management Services (AD RMS).

Prerequisite Comments

Before attending this course, students must have:
• TCP/IP and networking concepts.
• Windows Server 2012 and AD DS, including planning, designing and deploying AD DS and network infrastructure.
• Using scripts and batch files.
• Security concepts, such as authentication and authorization.
• Deployment, packaging, and imaging tools.
• Working on a team or with a virtual team.
• Creating proposals and making budget recommendations.
• Students should have achieved the Windows Server 2012 MCSA certification, as well as completed Course 20413B: Designing and Implementing an Enterprise Server Infrastructure, or have equivalent knowledge.

Target Audience

This course is intended for Information Technology (IT) professionals who are responsible for planning, designing and deploying a physical and logical Windows Server 2012 enterprise and Active Directory Domain Services (AD DS) infrastructures including the network services. Candidates would typically have experience of previous Windows Server operating systems and have Windows Server 2012 certification (MCSA) or equivalent skills.

The secondary audience for this course will be candidates are IT professionals who are looking to take the exam 70-414: Implementing an Advanced Enterprise Server Infrastructure, as a stand-alone, or as part of the requirement for the MCSE certification.

Course Objectives

After completing this course, students will be able to:
• Describe an enterprise data center.
• Plan and implement a server virtualization strategy using System Center
Planning and implement the network and storage infrastructure required to deploy a virtualized server infrastructure.
- Plan and deploy virtual machines on Windows Hyper-V®.
- Plan and implement a virtualization administration solution by using System Center 2012.
- Plan and implement a server monitoring strategy using the Windows Server 2012 tools and using Microsoft System Center 2012 - Operations Manager.
- Plan and implement an application and a file services infrastructure that is highly available.
- Plan and implement a highly available server infrastructure by using the failover clustering features in Windows Server 2012.
- Plan and implement a business continuity strategy in a Windows Server 2012 environment.
- Plan and implement a PKI deployment, and plan and implement a certificate management solution.
- Plan and implement an AD FS server deployment and claims aware application access.
- Plan and implement Dynamic Access Control, Workplace Join and Work Folders.
- Plan and implement an AD RMS deployment, plan and manage AD RMS templates and access, and plan and implement external access to AD RMS services.

Course Outline

Overview of Management in an Enterprise Data Center

Overview of the Enterprise Data Center
Overview of the Microsoft System Center 2012 Components
Lab : Considerations for Implementing an Enterprise Data Center

Planning and Implementing a Server Virtualization Strategy

Planning a VMM Deployment
Planning and Implementing a Server Virtualization Host Environment
Lab : Planning and Implementing a Server Virtualization Strategy

Planning and Implementing Networks and Storage for Virtualization

Planning a Storage Infrastructure for Virtualization
Implementing a Storage Infrastructure for Virtualization
Planning and Implementing a Network Infrastructure for Virtualization
Planning and Implementing Network Virtualization
Lab : Planning and Implementing Virtual Networks and Storage
Planning and Deploying Virtual Machines
Planning a Virtual Machine Configuration
Preparing for Virtual Machine Deployments with VMM
Deploying Virtual Machines
Planning and Implementing Hyper-V Replica
Lab: Planning and Implementing a Virtual Machine Deployment and Management Strategy

Planning and Implementing a Virtualization Administration Solution
Planning and Implementing Automation with System Center 2012
Planning and Implementing System Center 2012 Administration
Planning and Implementing Self-Service Options in System Center 2012
Planning and Implementing Updates in a Server Virtualization Infrastructure
Lab: Planning and Implementing an Administration Solution for Virtualization

Planning and Implementing a Server Monitoring Strategy
Planning Monitoring in Windows Server 2012
Overview of Operations Manager
Planning and Configuring Monitoring Components
Configuring Integration with VMM
Lab: Implementing a Server Monitoring Strategy

Planning and Implementing High Availability for File Services and Applications
Planning and Implementing Storage Spaces
Planning and Implementing a DFS
Planning and Implementing NLB
Lab: Planning and Implementing High Availability for File Services and Applications

Planning and Implementing a High Availability Infrastructure Using Failover Clustering
Planning an Infrastructure for Failover Clustering
Implementing Failover Clustering
Planning and Implementing Updates for Failover Clusters
Integrating Failover Clustering with Server Virtualization
Planning a Multisite Failover Cluster
Lab: Planning and Implementing a Highly Available Infrastructure Using Failover Clustering
Planning and Implementing Server Update Infrastructure

Overview of Business Continuity Planning
Planning and Implementing Backup Strategies
Planning and Implementing Recovery
Planning and Implementing Backup and Recovery of Virtual Machines
Lab: Implementing a Virtual Machine Backup Strategy with DPM

Planning and Implementing an Public Key Infrastructure

Planning and Implementing Deployment of a Certification Authority
Planning and Implementing Certificate Templates
Planning and Implementing Certificate Distribution and Revocation
Planning and Implementing Key Archival and Recovery
Lab: Planning and Implementing an Active Directory Certificate Services Infrastructure

Planning and Implementing an Public Key Infrastructure

Planning and Implementing an AD FS Server Infrastructure
Planning and Implementing AD FS Claim Providers and Relying Parties
Planning and Implementing AD FS Claims and Claim Rules
Planning and Implementing Web Application Proxy
Lab: Planning and Implementing an AD FS Infrastructure

Planning and Implementing Data Access for Users and Devices

Planning and Implementing DAC
Planning Workplace Join
Planning Work Folders
Lab: Implementing DAC and Access Denied Assistance
Lab: Implementing Work Folders

Planning and Implementing an Information Rights Management Infrastructure

AD RMS Overview
Planning and Implementing an AD RMS Cluster
Planning and Implementing AD RMS Templates and Policies
Planning and Implementing External Access to AD RMS Services
Planning and Implementing AD RMS Integration with Dynamic Access Control
Lab: Planning and Implementing an AD RMS Infrastructure

Related Courses, Certifications, Exams

- 20413 Designing and Implementing a Server Infrastructure
Technical

- Azure
- Dynamics CRM
- Exchange
- SharePoint
- Skype for Business
- SQL Server
- System Center
- Visual Studio
- Windows
- Windows Server
- Cisco
- Citrix
- Cloud and Big Data
- CompTIA
- Cybersecurity
- IBM
- ITIL
- Red Hat
- VMware

Applications

- Office 365
- Access
- Excel
- One Note
- Outlook
- PowerPoint
- Project
- Publisher
- Visio
- Word
- Acrobat
- Captivate
- Dreamweaver
- Flash
- Illustrator
- InDesign
- Photoshop
- Crystal Reports
- QuickBooks

Business

- Business Analysis
- Business Skills
- Center for Leadership and Development
- Project Management
- Salesforce
- Six Sigma
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